UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,380	07/11/2003	James Owen	BEAS-01364US0	4893

23910 7590 10/16/2007

FLIESLER MEYER LLP
650 CALIFORNIA STREET
14TH FLOOR
SAN FRANCISCO, CA 94108

EXAMINER	
LU, KUEN S	

ART UNIT	PAPER NUMBER
2167	

MAIL DATE	DELIVERY MODE
10/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/618,380	OWEN ET AL.	
	Examiner	Art Unit	
	Kuen S. Lu	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 August 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-10,12-17,20-27,37-42 and 44-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-10,12-17,20-27,37-42 and 44-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/7/07(4) and 9/5/07(1)*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The Action is responsive to Applicant's Amendment filed August 1, 2007. It is acknowledged claims 1, 5, 7-10, 12-17, 21, 37 and 45-47 were amended and claims 3, 11, 18-19, 28-36 and 49 in the Amendment were amended. Also acknowledged is a terminal disclaimer filed 8/1/2007.

2. Necessitated by the Amendment, Examiner hereby withdraws objections to claims 5, 13, 21 and 32 and nonstatutory double patenting rejections to claims 1-16, 28-35 and 37-49 over claims 1-35 and 37-38, respectively and sequentially, of copending Application No.10/618,519. However, Examiner maintains the 35 U.S.C. § 101 to claims 1-2, 4-10, 12-17, 20-27, 37-42 and 44-48. Please see details in "***Response to Arguments***" next or ***Claim Rejections - 35 USC § 101*** later.

3. Please note claims 1-2, 4-10, 12-17, 20-27, 37-42 and 44-48 are pending.

Response to Arguments

4. The Applicants' arguments filed on August 1, 2007 have been fully considered, for the Examiner's response, please see discussion below.

a). At Pages 10, concerning claims 1-2, 4-8, 17, 20-27, 37-42, 44-48, 9-10 and 12-16, Applicants argued that after the Amendment made, the claims are statutory.

Concerning the above argument, the Examiner respectfully submits that the claims are either memory or storage medium comprising a data structure, a non-functional

descriptive materials which are non-statutory in view of MPEP 2106.01. The Examiner further explains in the ***Claim Rejections - 35 USC § 101*** section later.

b). At Pages 10-11, concerning claim 1, Applicants argued that the claimed has been amended and Van Huben's directory comprising sub-directories does not teach a single logical content repository from application program's viewpoint.

As to the above argument, Examiner respectfully submits that a content control repository table comprising entries pointing to diversified physical stored repositories of contents is a single logical unit which provides teaching for the amended. Please note a table in a relational database is a uniquely identifiable object.

c). At Pages 12-13, concerning claim 17, Applicants argued similarly as that for claim 1 and further argued that Van Huben does not disclose that its each of the first set of nodes has an identifier that indicates its logical location in the hierarchy formed by the first set of nodes.

With respect to the above argument, Examiner respectfully applies the teaching of content control repository table as provided previously in claim 1 response. Furthermore, the hierarchy of table and its entries, records in the table, are nodes identifiable via table logical ID and row ID in a relational database.

d). At Pages 13-14, concerning claim 37, Applicants argued similarly as did for claims 1 and 17. Examiner respectfully applies the same responses as described previously.

e). At Pages 14-15, concerning dependent claims, Applicants argued that the claims are allowable because of its respective dependency on alleged allowable independent claims. Examiner respectfully submits that grounds have been newly cited from the originally cited section to provide teaching for rejecting the amended in the amended independent claims and the dependents remain rejected accordingly.

Information Disclosure Statement

5. The information disclosure statements filed August 7, 2007 and September 5, 2007 is in compliance with 37 CFR 1.97(c) and therein has been considered. Its corresponding PTO-1449 has been electronically signed as attached.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. § 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6.1. As set forth in MPEP 2106 (II) (A):

The claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); In re Ziegler, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)). Accordingly, a complete disclosure should contain some indication of the practical application for the claimed invention, i.e., why the applicant believes the claimed invention is useful.

Apart from the utility requirement of 35 U.S.C. 101, usefulness under the patent eligibility standard requires significant functionality to be present to satisfy the useful result aspect of the practical application requirement. See Arrhythmia, 958 F.2d at 1057, 22 USPQ2d at 1036. Merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make the invention eligible for patenting. For example, a claim directed to a word processing file stored on a disk may satisfy the utility requirement of 35 U.S.C. 101 since the information stored may have some "real world" value. However, the mere fact that the claim may satisfy the utility requirement of 35 U.S.C. 101 does not mean that a useful result is achieved under the practical application requirement. The claimed invention as a whole

must produce a "useful, concrete and tangible" result to have a practical application

6.2. As set forth in MPEP 2106 (IV) (B) (1):

Claims to computer-related inventions that are clearly nonstatutory fall into the same general categories as nonstatutory claims in other arts, namely natural phenomena such as magnetism, and abstract ideas or laws of nature which constitute "descriptive material." Abstract ideas, Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759, or the mere manipulation of abstract ideas, Schrader, 22 F.3d at 292-93, 30 USPQ2d at 1457-58, are not patentable. Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data. Both types of "descriptive material" are nonstatutory when claimed as descriptive material per se. Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

6.3. As set forth in MPEP 2106 (IV)(B)(1)(a):

Similarly, computer programs claimed as computer listings *per se, i.e.,* the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. Accordingly, it is important to distinguish claims that define descriptive material *per se from claims* that define statutory inventions.

Products may be either machines, manufactures, or compositions of matter.
A machine is "a concrete thing, consisting of parts or of certain devices and combinations of devices. *Burr v. Duryee. 68* U.S. (1 Wall.) *531, 570 (1863).*
If a claim defines a useful machine or manufacture by identifying the physical structure of the machine or manufacture in terms of its hardware or hardware and software combination, it defines a statutory product. See, e.g., *Lowry, 32 F.3d* at *1583, 32* USPQ2d at *1034-35; Warmerdarn,* 33 F.3d at 1361-62, 31 USPQ2d at 1760.
Office personnel must treat each claim as a whole. The mere fact that a hardware element is recited in a claim does not necessarily limit the claim to a specific machine or manufacture. Cf. *In re Iwahashi, 888* F.2d 1370, 1374-75, 12 USPQ2d 1908, *191 1*-12 (Fed. Cir. 1989), cited with approval in *Alappat,* 33 F.3d at 1544 n.24, 31 USPQ2d at 1558 n_24.

6.4. Claims 1-2, 4-10, 12-17, 20-27, 37-42 and 44-48 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

As described in MPEP 2106.01, when nonfunctional descriptive material is recorded on some computer-readable medium, in a computer or on an electromagnetic carrier signal, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See Diehr, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in Benson were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.").

As per claims 1-2, 4-8, 17 and 20-27, the claimed invention represents a memory stored in which a data structure including some components. Note the data structure is a nonfunctional description material and its storage on memory does not make it statutory. However, a tangible, concrete and useful result is required in a **practical application test**. The consequence is non-statutory. In addition, claim concerns a subject matter stored upon a data structure that is not one in any of the statutory categories. The claim is simply directed to *non-statutory subject matter.*

As per claims 9-10 and 12-16, the claims direct to a computer readable storage medium comprising non-functional descriptive materials. Therefore, similar to claims 1-2, 4-8, 17 and 20-27, they are non-statutory.

As per claims 37-42 and 44-48, the claims direct to a memory comprising non-functional descriptive materials, for example, first object and second object. Therefore, they're non-statutory.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office action:

7.1. A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7.2. Claims 1-2, 4-10, 12-17, 20-27, 37-42 and 44-48 are rejected under 35 U.S.C. 102(b) as anticipated by Van Huben et al. (U.S. Patent 6,325,594, issued December 4, 2001, hereafter "Van Huben").

As per claims 1 and 9, Van Huben respectively teaches "A memory for storing data for access by an application program being executed on a computer system, comprising: a data structure stored in said memory"; "A computer readable storage

medium containing a data structure for representing information in a virtual content repository (VCR)" and "A computer data signal embodied in a transmission medium" (See Fig. 2 and Abstract where storage, medium and instruction are provided in a layered system architecture for data repositories managed by a virtual control repository allowing processed to perform on the data via application interfaces), comprising:

"a name" (See Figs. 3B, 11B, col. 11, lines 13-34 and col. 23, lines 41-51 where name is defined as a column for content media and BOM applications);

"a content repository identifier" (See col. 14, lines 15-18 where a unique file identifier is a reference to file in a control repository);

"a plurality of properties" (See Fig. 3A and col. 10, lines 39-56 where objects are classified in according to basic attributes);

"a plurality of property definitions associated with the plurality of properties" (See Fig. 3A and col. 10, lines 39-56 where objects are classified in according to basic attributes and variances exist within each attributes); and

"a reference to a parent data structure" (See Figs. 4A-4B and col. 14, lines 9-48 where hierarchical structures are established between parent and child nodes);

"wherein the data structure is logically part of a virtual content repository (VCR), and wherein the VCR represents ~~at least one content repository~~ a plurality of content repositories logically as a single content repository from the application program's viewpoint" (See col. 14, lines 9-33 where control repository maps entries in a table to physical repositories, for example, file references are mapped to physical storage or URLs, and furthermore, all data in a data management system can be tracked in a

similar fashion regardless of the physical storage method employed, for example, a control repository table is a logical content repository unit having entries of diversified physically stored repositories of contents).

As per claims 2 and 10, Van Huben teaches the following:

"a repository name" (See col. 14, lines 30-40 where control repositories are name DATA RESPOSITORY C and etc.); and

"a content identifier that is unique for the content repository" (See col. 14, lines 15-20 where file reference is uniquely identified).

As per claims 4 and 12, Van Huben teaches the following:

"property is an association between a name and at least one value" (See col. 10, lines 39-56; col. 17, lines 5-13 where); and

"wherein the at least one value can be stored in one of the at least one content repositories" (See Fig. 3A, col. 10, lines 35-56 and col. 17, lines 5-15 where content is stored in repositories and data is stored in libraries).

As per claims 5 and 13, Van Huben teaches "the at least one value can be a text string, a number, an image, an audio and visual presentation, or binary data" (See col. 10, lines 35-56 where a computer implemented data array the data contained within must be represented as binary data).

As per claims 6 and 14, Van Huben teaches at least one of the following: "property choices; a reference; a data type; whether the property is mandatory; whether the property is multi-valued; whether the property is primary; whether the property is read-only; and whether the property is restricted" (See col. 10, lines 54-55 where a collection of data objects share the same and restricted data format).

As per claims 7 and 15, Van Huben teaches "the data structure is hierarchically related to other data structures and the ~~at least one content repository~~ a plurality of content repositories" (See Figs. 4A-4B, col. 11, lines 1-12 and col. 14, lines 9-48 where hierarchical structures are established between parent and child nodes in the file directory, a content repository, and also established between content control repository table and its entries of diversified physical stored repositories of contents).

As per claims 8 and 16, Van Huben teaches "the data structure is hierarchically inferior to the ~~at least one content repository~~ a plurality of content repositories" (See Figs. 4A-4B, col. 11, lines 1-12 and col. 14, lines 9-48 where hierarchical structures are established between parent and child nodes in the file directory, a content repository, and also established between content control repository table and its entries of diversified physical stored repositories of contents).

As per claim 37, Van Huben teaches "A memory for storing data for access by an application program being executed on a computer system" and "A computer data signal embodied in a transmission medium" (See Fig. 2 and Abstract where storage, medium and instruction are provided in a layered system architecture for data repositories managed by a virtual control repository allowing processed to perform on the data via application interfaces), comprising:

"a first object to provide a first group of services related to interacting with a hierarchical namespace" (See Fig. 2, element 24 and col. 13, lines 47-49 where transactions in the Control Repository Access Layer perform transactions on Control Repository, a hierarchical namespace);

"a second objects to provide a second group of services related to associating information with the first object" (See Fig. 2, elements 23 & 24 and col. 13, lines 34-43 where a CLIENT/SERVER layer interface is established for communicating the Control and Data Repositories layers);

"a plurality of third objects to provide a third group of services related to describing attributes of the plurality of second objects" (See Fig. 2, elements 22 & 23 and col. 13, lines 17-30 where a Data Management System layer is established to communicate API to Client/Server Interface layer);

"wherein the first object is logically part of a virtual content repository (VCR) and includes a reference to a parent object, and wherein the VCR represents ~~at least one content repository~~ a plurality of content repositories logically as a single content repository from the application program's viewpoint" (See Fig. 2, element 21, col. 12,

lines 24-33 and col. 14, lines 9-33 where some functions bundled in the DMS MANAGERS layer belong to and logically part of other layers in the system architecture, including DMS Application, Client/Server, and Control and Data Repositories layers, and furthermore, all data in a data management system can be tracked in a similar fashion regardless of the physical storage method employed, for example, a control repository table is a logical content repository unit having entries of diversified physically stored repositories of contents).

As per claim 38, Van Huben teaches "The memory of claim 37 wherein the first group of services comprises: first functions that enable associating the plurality of first objects with locations in the namespace" (See col. 12, line 66 - col. 13, line 16 and col. 13, lines 47-54 where an object in layer may construct customized modules from a layer below and transactions in the Control Repository Access Layer perform transactions on Control Repository, a hierarchical namespace).

As per claim 39, Van Huben teaches "The memory of claim 37 wherein the second group of services comprises: second functions that enable creating, reading, updating and deleting the information" (See col. 13, lines 47-53 where transactions in the Control Repository Access Layer perform transactions on Control Repository).

As per claim 40, Van Huben teaches "The memory of claim 37 wherein the third group of services comprises: third functions that enable specifying at least one of the

following for the plurality of second objects: property choices a reference; an information type; whether the information is mandatory; whether the information is multi-valued; whether the information is primary; whether the information is read-only; and whether the information is restricted (See col. 13, lines 17-22 where utilities in DMS Application layer are needed for user to interact with DMS layer).

As per claim 41, Van Huben teaches "a plurality of fourth objects to specify locations of the plurality of first objects in the namespace" (See col. 14, lines 9-18 where Data Repository layer comprises different names to specify locations of repositories).

As per claim 42, Van Huben teaches "The memory of claim 41 wherein each of the plurality of fourth objects includes: a content repository name" (See col. 14, lines 9-18 col. 14, lines 9-18 where Data Repository layer comprises different named repositories); and
"a content identifier that is unique for the content repository" (See col. 14, lines 9-18 col. 14, lines 9-18 where Data Repository layer comprises different named repositories).

As per claim 44, Van Huben teaches "a fifth object to provide a fifth set of services related to searching the VCR" (See Fig. 2, element 20 and col. 11, lines 45-49 where User Interface Layer allows user to communicate DMS Managers via Application Program Interface);

As per claim 45, Van Huben teaches "The memory of claim 37 wherein: each of the plurality of second objects associates a name and at least one value" (See col. 14, lines 15-18 file is checked in or out based on unique reference identification); and "wherein the at least one value can be stored in one of the ~~at least one content repository~~ a plurality of content repositories" (See col. 13, lines 44-53 Control Repository has stored information may be deleted, and col. 14, lines 9-33 where a control repository table having entries pointing to a diversified physically stored repositories of contents, and at col. 14, lines 9-33 where a content repository table having entries pointing a diversified physical stored repositories of contents).

As per claim 46, Van Huben teaches "The memory of claim 45 wherein: the at least one value can be a text string, a number, an image, an audio and visual presentation, or binary data" (See col. 14, lines 40-48 where transactions are operations to perform against Control Repository must be represented as binary data).

As per claim 47, Van Huben teaches "The memory of claim 37 wherein: the first object is hierarchically related to other objects and to the ~~at least one content repository~~ a plurality of content repositories" (See col. 11, lines 1-12 and col. 13, lines 44-46 where Control Repository Access Layer accesses and is hierarchically one layer above and related to the Control Repository layer, and at col. 14, lines 9-33 where a content repository table having entries pointing a diversified physical stored repositories of contents).

As per claim 48, Van Huben teaches "a sixth object to provide a sixth set of services related to configuring the VCR" (See Fig. 2, element 20 and col. 11, lines 45-49 where User Interface Layer is the set of services related to and access Data Managers Layer via Application Program Interface).

As per claim 17, Van Huben teaches "A memory for storing virtual content repository (VCR) information for access by an application program being executed on a computer system" and "teaches "A computer data signal embodied in a transmission medium" (See Fig. 2 and Abstract where storage, medium and instruction are provided in a layered system architecture for data repositories managed by a virtual control repository allowing processed to perform on the data via application interfaces), comprising:
"a data structure stored in said memory, the data structure including: a root node" (See Fig. 4A and col. 14, lines 9-33 where Project/Data is the root node of the Data Repository data structure);
"a first set of nodes wherein each node in the first set can be hierarchically related to at least one other node in the first set, and wherein all nodes in the first set are hierarchically inferior to the root node" (See Fig. 2, element 24 and col. 13, lines 47-49 where transactions in the Control Repository Access Layer perform transactions on Control Repository, a hierarchical namespace);
"a second set of nodes associated with the first set of nodes, wherein the second set of nodes provides schema information for the first set of nodes" (See Fig. 2, elements 23 &

24 and col. 13, lines 34-43 where a CLIENT/SERVER layer interface is established for communicating the Control and Data Repositories layers);

"wherein the VCR represents a plurality of content repositories logically as a single content repository from the application program's viewpoint" (See col. 14, lines 9-33 where all data in a data management system can be tracked in a similar fashion regardless of the physical storage method employed, for example, a control repository table is a logical content repository unit having entries of diversified physically stored repositories of contents);

"wherein each one of the first set of nodes has an identifier that indicates its logical location in the hierarchy formed by the first set of nodes" (See col. 14, lines 9-33 where all data in a data management system can be tracked in a similar fashion regardless of the physical storage method employed, for example, a control repository table is a logical content repository unit having entries of diversified physically stored repositories of contents);

"wherein each one of the first set of nodes can represent one of: 1) a node container; 2)repository content; and 3)a repository" (See Fig. 2, element 24 and col. 13, lines 47-49 where transactions in the Control Repository Access Layer are content of and perform transactions on Control Repository); and

"wherein each one of the first set of nodes can be associated with the at least one property" (See Fig. 2, element 21 and col. 12, lines 24-33 where some functions bundled in the DMS MANAGERS layer belong to and logically part of other layers in the system architecture, including DMS Application, Client/Server, and Control and Data

Repositories layers).

As per claim 20, Van Huben teaches "The memory of claim 17 wherein: a property is an association between a name and at least one value" (See Fig. 3A, col. 10, lines 35-56 and col. 17, lines 5-15 where content is stored in repositories and data is stored in libraries).

As per claim 21, Van Huben teaches "The memory of claim 20 wherein: the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data" (See col. 13, lines 47-53 where transactions in the Control Repository Access Layer perform transactions on Control Repository).

As per claim 22, Van Huben teaches "The memory of claim 17 wherein: a second node belonging to the second set of nodes can be associated with at least one property definition" (See Fig. 2, elements 23 & 24 and col. 13, lines 34-43 where a CLIENT/SERVER layer interface is established for communicating the Control and Data Repositories layers).

As per claim 23, Van Huben teaches "The memory of claim 22 wherein: a property definition can specify at least one of the following for a property: property choices; a reference; a data type; whether the property is mandatory; whether the property is multi-valued; whether the property is primary; whether the property is read-only; and

whether the property is restricted" (See col. 13, lines 17-22 where utilities in DMS Application layer are needed for user to interact with DMS layer).

As per claim 24, Van Huben teaches "The memory of claim 22 wherein: there is a property definition for each property associated with each one of the first set of nodes" (See Fig. 3A and col. 10, lines 39-56 where objects are classified in according to basic attributes and variances exist within each attributes).

As per claim 25, Van Huben teaches "The memory of claim 17 wherein: a first node belonging to the first set of nodes that represents a container can be hierarchically inferior to a second node belonging to the first set of nodes that represents one of: 1) a container; and 2) a repository" (See Figs. 4A-4B, col. 11, lines 1-12 and col. 14, lines 9-48 where hierarchical structures are established between parent and child nodes in the file directory, a content repository).

As per claim 26, Van Huben teaches "The memory of claim 17 wherein: a first node belonging to the first set of nodes that represents a repository can be a direct child of the root node" (See Figs. 4A-4B, col. 11, lines 1-12 and col. 14, lines 9-48 where hierarchical structures are established between parent and child nodes in the file directory, a content repository).

As per claim 27, Van Huben teaches "The memory of claim 17 wherein: a first node

belonging to the first set of nodes that represents content can be a direct or indirect child of a second node belonging to the first set of nodes that represents one of: 1) repository content; 2) a container; and 3) a repository" (See Figs. 4A-4B, col. 11, lines 1-12 and col. 14, lines 9-48 where hierarchical structures are established between parent and child nodes in the file directory, a content repository).

References

8.1. The prior art made of record

A. U.S. Patent 6,327,594

8.2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

B. U.S. Patent 6,857,012

C. U.S. Patent Application 2004/0024812

D. U.S. Patent 6,360,363

E. U.S. Patent Application 2003/0167455

F. U.S. Patent 7,047,522

(The rest of this Page is intentionally left blank).

Conclusion

Applicant's amendment necessitated the new grounds of rejection presented in this Office Action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1 .136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Kuen S. Lu whose telephone number is (571)-272-4114. The examiner can normally be reached on Monday-Friday (8:00 am-5:00 pm).
If attempts to reach the examiner by telephone pre unsuccessful, the examiner's Supervisor, John Cottingham can be reached on (571)-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for Page 13

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-27-9197 (toll free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, please call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kuen S. Lu, KL

Patent Examiner, Art Unit 2167

October 15, 2007